Online communities of payments and consumer behaviour

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Online communities of payments and consumer behaviours: The *Second Life* case

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Abstract

This paper asserts that the online communities of electronic money (e-money) users affect the traditional mechanisms of price determination by introducing anonymity in money payments. By studying the Second Life case it is possible to show the main characteristics of such a communities and raise new questions linked to the online behaviours of the consumers. In the aim of shedding light on the online consumer behaviour we turn to Thorstein Veblen works and to network externalities concepts.

1. Introduction

The internet hosts an increasing number of large synthetic worlds, like the Second Life World, which users can visit by piloting a computer-generated body, known as an avatar. These virtual worlds exhibit most of the characters we associate with the real world like interpersonal relationships, economic transactions, production of goods and services, political institutions…Inside these synthetic worlds, new economic behaviours can be studied. The price determinations mechanisms and the economic behaviours have their proper rules. Firstly, this paper shows the main benefits for buyers of using electronic monies (e-monies) and entering in a community of payments. Secondly, the economic behaviour of e-money users and the network externalities effects are studied.

2. The online monetary communities of e-money users

The Internet network makes possible the emergence of new communities of payment using electronic money (e-money). *Electronic money* is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to undertaking other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument. Communities of e-money have several characteristics. The first one is the anonymity. It can be possible to transfer funds anonymously with the *paypal* system. Nowadays, over 150 millions of accounts are open in the paypal website (paypal.com). It is possible to receive money while remaining anonymous. A simple e-mail address is sufficient for selling and buying. PayPal lets shop without sharing financial information. Obviously, it is easier to hide money from the government by using the paypal system. However, if you have a non-verified status on your paypal bank account you are limited in your payments. It is impossible to pay more than 1500, 00 €. Such a limit of payment can be crossed by creating, still anonymously numerous paypal accounts. Anonymity in transaction is something that buyers and sellers often want. Forms of electronic money can provide anonymity but still rely on trust between the parties.

In the United Kingdom, it is possible, to buy a prepaid Mastercard called Cashplus without informing your bank. A simple driving licence or a passport is sufficient to buy the Cashplus prepaid card. With such a card, the buyer is not anonymous but, like any paper banknote, the money can circulate apart from the banking system.

In the Europe, the regulation 2002-13 of 21 November 2002 prevented anyone to issue e-money outside the European interbank system. However, the development of the e-commerce is so rapid than the temptation to use anonymous ways of payment is, for many reasons, very strong for many e-buyers and e-sellers.

The second characteristic of the new communities of e-money users relies on the capacity of creating temporarily private money. A truly private, e-money originates outside the government and outside the banking system.

On that subject, the Second Life network users, is enlightening (see secondlife.com). Second Life has its own currency called Lindens. On any given day people are using it to conduct transactions. People can cash Lindens out of the game on the Lindex. Several online resources allow residents of Second Life to convert Linden Dollars into US Dollars and vice-versa . Rates fluctuate based on supply and demand, but over the last few years they have remained fairly stable at approximately 250 Linden Dollars (L$) to the US Dollar. It is also possible to make money in Second Life but such a money is not generated by private players of the game. All the money circulating in Second Life comes originally from the "real" Central Banks. Nevertheless, players earning Linden Dollars during the game avoid temporarily the official taxation on profits.

Living in an economy, where different monies coexist, forces people to adapt every aspect of their economic activities to this new environment. The most routine daily transactions have to be organized differently. As explained by Heymann and Leijonhufvud (1995), "*Money is not a refrigerator. The picture of money as a service-producing asset is incomplete without a look at transactions practices*". Admittedly, with the e-money the transaction costs decrease but new practices of transactions also appear. The monetary regime tends to be parcelled out by different communities of payment. By monetary regime, we adopt the Heymann-Leijonhufvud definition that is on the one hand, a system of expectations on the part of the public that governs their decision and, on the other, that pattern of behaviour on the part of the policy-making authorities that sustains these expectations. The monetary regimes forms a crucial part of the environment in which both the public and the authorities have to make their decisions.

The economy operates with different currencies, which each one used in different types of transactions. Wages are paid in domestic money and households convert them partly in different e-monies or quasi e-monies. Different communities of payment threaten social institutions and arrangements existing in a united monetary regime.

The emergence of different communities of payment menaces the public character of the money. Money can be considerate as a public good. On this subject, Wieser clearly regarded money as one of the founding institutions of social economy [2]. Money is an institution which has social responsibilities. Money ownership must follow the same rules for anyone.

With the *Digital bearer money*, networks of money users are developing apart from banks and others networks. Digital bearer money is like cash and can be transferred person-to-person without going through a bank or PayPal account. The Digital bearer money creates injustice toward those for practical, legal or financial reasons cannot access it. Moreover, a major change in the nature of money would have significant unintended consequences. For instance, the advantages for criminals and tax evaders could be considerable.

Progressively, different communities of e-payment are setting up. For the moment, the footbridges between the various communities do not exist. Nevertheless, it is enlightening to make a comparison between Smiles and Maximiles.

Smiles or Maximiles are like points, much as the airlines' frequent flyer miles. They are now used as rewards for visiting hundreds web sites. But as more sites are added, these points tend to become world's virtual currency on the internet and can be assimilated as Digital bearer money.

Regarding to the Maximiles provider, it is possible to obtain Maximiles without using euros. The more you are visiting or buying good or services on the Maximiles online network, the more you obtain Maximiles. You can also buy Maximiles online for buying goods or services only available in the Maximiles' shop network. At the present time the EUR/Maximiles exchange rate is 0,02, i.e. with 1 euro, you can buy online 50 maximiles.

The communities of both Paypal banking services and Linden Dollars users are growing very fast. One important consequence results in the decrease in demand for central banks and consequently the decrease of central bank seigniorage revenue [3]. The central banks make large income from issuing paper banknotes, which are non-interest bearing central banks liabilities. The decrease of seigniorage revenues may cause that central banks can not cover their operation costs. As seigniorage revenues are one of the most significant income sources of national treasury at the same time, it can be also stated that there will be a decrease in the income of treasury.

The decrease in money demand due to the spreading of the e-money can be studied by using the Baumol-Tobin framework. Such a framework direct attention to the transaction costs of moving in and out money substitutes. The "shoe-leather" metaphor – the real costs of too many trips to the bank or broker-

stems directly from it. The Internet e-money permit a reduction in transaction costs (the “shoe leather cost”). Consequently, on one side, the interest elasticity of money demand increase and on the other side there is a permanent decrease in money demand. Fullenkamp and NSouli demonstrate the analytical consequences of the e-money on the money market [4]. By using the standard IS-LM model, they shows that the e-money shift downward and flatter the LM curve and therefore decrease the interest rate. A flat LM curves represent Keynes’s liquidity trap in which the monetary policy is not effective. Consequently, with the development of the e-banking, the fiscal policy becomes more and more inefficient.

Traditionally, Central banks try to influence the households and firms pricing behaviours through interest rate, exchange rate, asset price, credit, expectations and monetarist channels. The success of Central banks monetary policies requires positive demand on government money because central banks can influence real economy mainly through interest rates. As we have seen, the government money demand decrease as a consequence of the spread of electronic money. Therefore, the real effect of central banks monetary policy weakens.

3. The influence of the e-money on the consumer behaviours Main title

The various e-money networks communities, like the Linden Dollars case raise new questions. Traditionally, games worlds are completely distinct from the real world. In Second Life, a virtual world, many virtual objects - like ideas, software, surveys - bought or sold during the game by virtual avatars are directly marketable in the real world. For instance, it is possible to make and enquiry, an opinion pool or any marketing test in the Second Life World and selling in central money the results of these surveys in the real world. Nowadays, most of the biggest international firms are active in Second Life. The borders between the Second Life virtual world and the real world are increasingly fuzzy. On an economic point of view, this opacity complicates the rational calculus of the price vector. In the general neoclassical theory inherited of Walras, Jevons and Menger, the fixation on a price rely on the private utility. In Second Life, the players buy or sell virtual objects at a price based on ostentatious criteria. For instance, you do not buy a virtual coat with linden dollars to avoid a cold in winter but for showing yourself and showing your richness in Linden Dollars. Therefore, goods have not a private utility for agents but a social utility.

The works of Thorstein Veblen (1857-1929) are helpful to understand the price determination mechanisms in Second life world. Veblen (1899) argues that economic life is driven not by notions of utility [5]. He defined conspicuous consumption as the waste of money by people to display a higher status than others. The *conspicuous consumption* term has a very popular catchphrase which is “Keeping up with the Joneses”. Such a expression refers to the desire to be seen as being as good as one's contemporaries using the comparative benchmarks of social caste or the accumulation of material goods. By Social class, Veblen refers to the hierarchical distinctions between individuals or groups in societies or cultures. Failing to "keep up with the Joneses" is perceived as demonstrating to others socio-economic or cultural inferiority.

The conspicuous consumption term takes root in *The Theory of Moral Sentiments* of Adam Smith [6]. Adam Smith acknowledged that economic agents value wealth not only for the goods and services that it procure to them, but also for the impression that it makes on others. Veblen analyses displays of wealth as status signals, but Smith proposes a different explanation. According to Smith, the consumer is naturally more disposed to show his richness than his poverty. “It is because mankind are disposed to sympathize more entirely with our joy than with our sorrow, that we make parade of our riches, and conceal our poverty. Nothing is so mortifying as to be obliged to expose our distress to the view of the public, and to feel, that though our situation is open to the eyes of all mankind, no mortal conceives for us the half of what we suffer.” [6]

Following Smith, John Stuart Mill [7] observes that many goods are bought for the reputation they procure in regard to the opinion. “a great portion of the expenses of the higher and middle classes in most countries, and the greatest in this, is not incurred for the sake of the pleasure afforded by the things on which the money is spent, but from regard to opinion, and an idea that certain expenses are expected from them, as an appendage of station; and I cannot but think that expenditure of this sort is a most desirable subject of taxation.”[7]

Like Smith and Mill, Veblen recognizes the importance of consumption not for its own sake but what it signals about the consumer. Originally, the conspicuous consumption term was used by Veblen to depict the behavioural characteristic of the *nouveau riche*, a new class that emerged in the 19th century. Afterwards, the signification of this term was extended

to economic agents whose consumption patterns are driven by status seeking rather than their substantial needs. From Veblen works on conspicuous consumption, Paul Nystrom theorised a *philosophy of futility* which encompassed the emergence addictive or narcissistic behaviours provoked by consumerism [8].

For Veblen, the conspicuous leisure is a waste of time by people to give themselves higher status. He asserts that humans are not rational, utility-seeking people who try to maximize their pleasure but are completely irrational creatures that run after social status. Reading Veblen works by taking into consideration what occurs in Second life is very enlightening. In the virtual world of Second Life, the different communities of users behave with an *emulation* attitude. The term *emulation* is proposed by Veblen to illustrate the permanent run after the social status. The avatars attempt to mimic the more respected members of their group in order to gain more status for themselves. Such a mimetic process can be studied by using the institutional isomorphic change described by DiMaggio and Powel [9]. Moreover, the emulation attitude modifies the mechanism of price determination. In Second Life, many goods are *Veblen goods*. Commodities are *Veblen goods*, by definition, if people's preference for buying them increases as a direct function of their price.

Some types of high-status goods in Second Life , such as expensive virtual clothes, are Veblen goods, in that decreasing their prices *decreases* people's preference for buying them because they are no longer perceived as exclusive or high status products. Similarly, a price increase may increase that high status and perception of exclusivity, thereby making the good further preferable.

For instance, decreasing the price of the land *decreases* people's preference for buying it because it is no longer perceived as exclusive or high status products.

The Veblen goods introduce anomalies in the general theory of supply and demand in microeconomics. Among these anomalies, we can observe in Second Life the *snob effect* which increase the demand for goods because they have a high economic value, but low practical value. In Second Life, the Veblen goods introduce another anomaly called *bandwagon effect* [11]. There is a bandwagon effect when the preference for goods increases as the number of people buying them increases. The bandwagon effect disturbs the normal results of the theory of supply and demand , which assumes that consumers make buying decisions solely based on price and their own personal preference.

Such an effect introduces network externalities by increasing returns to adoption. Networks externalities can be found in any network because they provoke a positive feedback. The more the network increases, the more the network is attractive for new users.

Network effects become significant after a certain subscription percentage has been achieved, called *critical mass*.

By studying different electronic purses schemes, Clark found that the most successful networks tend to have the following characteristics: a captive audience that drives critical mass, such as those found in the transportation industry or government sector; an affordable cost structure relative to other payment instruments; compelling incentives to consumers and merchants; and a technology that is well tested and that addresses standard issues before the rollout [10]. Admittedly, the Second Life community, as any network, is characterized by this positive feedback. Moreover, positive feedbacks can be found inside the network because most a goods in Second life are Veblen goods.

For Veblen, social change can be analysed as a process of institutional coordination and transformation. Any human community, like the Second life community, may be viewed as an economic mechanism. Such an economic mechanism is closely linked to the material environment in which the human community lives.

According to Veblen, the economic and social behaviours are impeded from cultural rigidities. Observing the behaviour and mind sets of the avatars in the Second Life Community confirm the assertion of Veblen.

The Second Life world allow an agent to choose what kind of avatar she or he will live in, allowing a person with any kind of real body to inhabit a completely different body in the virtual world. As studied by Edward Castronova [12], the emergence of avatar-mediated living raises both positive and normative questions. Logically, the main aim of creating an avatar in Second Life is to live a “second life” that is, a life which can be completely different of the life in the real world. Surprisingly, most of the avatars are a clone of its owners. For instance, if a man with brown hairs creates his own avatar on Second Life, he will choose a masculine brown hairs avatar.

The cultural rigidities on the real life pass through the virtual second life.

4. Conclusion

The communities of electronic money users are communities of practice which adopts specific decisions, routines and behaviours. These communities can temporarily move away from the official monetary regime regulated by central banks. Moreover, the classical analysis of price setting behaviour based on the private utility maximisation rule is somewhat unsuited. With e-monies, publics or privates, the monetary policy becomes less effective. Quasi e-monies like the Linden Dollars provide socially useful services. The central banks should not prevent them to fulfil their social missions. However, central banks should integrate them in the official interbank system both for fiscal reasons and to protect the lawful aspect of the money. Money must not generate exclusion. All the economic agents must have access to all type of goods and all the virtual shopping centres.

Bandwagon effects, Veblen goods, and networks externalities affect the online computer e-money user behaviour. In the aim of understanding such a specific behaviours, it is useful to move away from the traditional theory of utility maximisation based on private goods because many goods bought online with e-money are social goods.

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